Federal Aviation Administration

Russ Chew 1-800-FAA-NEWS Phone Message
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Hello, this is Russ Chew with the update for April 28th.

With all of the rumors out there related to our labor contracts, it is easy to become confused or mislead by all of the churn and rhetoric out in the field facilities. With new rumors surfacing every day, it is even more important we do our best to communicate with our folks in the field about what's going on; and answer any specific questions that come up, just as simply and as quickly as possible.

So we have started a daily teleconference with our managers in the field, so that we can provide answers to many of the questions that are coming up. And it is a two-way channel. Our managers can submit their questions to us every day, and we'll try to respond with the facts and answer their question using this new teleconference. We've been running these for about a week now, and so far the feedback has been very good.

But beyond contracts, I'd like to talk about something else that is also very important to our future, and that is our research and development efforts, or "R&D" for short. With most of the news focusing on the daily challenges we have in the field, you may ask,

“Why is investing in R&D so important to us? After all, we have an operation to run, and it seems that resources these days are getting pretty thin.” So let me spend a couple of minutes on this.

First of all, there’s no question that today we are serving a rapidly changing aviation system. Markets once dominated by wide-body aircraft and hub-and-spoke systems are now giving way to smaller jets and point-to-point service. Although we don’t know exactly how these markets will emerge, there’s no question that the new micro-jets, new unmanned aerial vehicles, and even commercial space launches, will wreak havoc with the ATC system if we try to run it as we do today. Also, what new security requirements will be needed as terrorism evolves in the years ahead? These questions will need to be answered if we’re to successfully tackle these new developments.

In the past, our R&D programs were driven by the near-term operational needs of the aviation system. As a result, almost all of our programs focus on very specific safety issues and near-term capacity targets. But in the future, we also need our R&D programs to look at what is being defined by the Next Generation Air Transportation System, which is coming out of the Joint Planning and Development Office, or JPDO.

The reality is that our strategic vision of the Next Generation System must go beyond just improving safety and increasing capacity; but also has to include what we need to do with our aging facilities, and improving the productivity of our workforce. Just as important, our plan must help us with the affordability of the improvements – so we

can compute our capital needs and do the analysis required to realize the economic growth related to aviation.

With the growing budget pressures, our plan must fit into a larger one that combines the plans of other departments, agencies, industry, and education, so we can capitalize on combining all of our constrained R&D budgets. The Air Traffic Organization has the role of coordinating all the R&D programs across the entire FAA, and we have a number of offices performing research. The majority of the FAA's research and development activities come out of the William J. Hughes Technical Center, which falls under the ATO's Operations Planning unit. In the near future, we will be looking to further improve the coordination of our R&D activities, so they can be even more focused on supporting the innovations needed for achieving our joint vision of the Next Generation Air Traffic System.

Automatic Dependent Surveillance-Broadcast, or ADS-B; and System Wide Information Management, known as SWIM, are two examples of research projects that have graduated from just development; and are now analyzing the range of business cases needed to justify the funding for implementation into our operation.

ADS-B provides automatic broadcast of aircraft position, altitude, and speed; enhancing the "visibility" of aircraft and vehicle traffic for pilots and air traffic controllers; and could be used to reduce our reliance on our aging ground-based radars, while supporting more advanced air traffic concepts in the future.

The SWIM program combines technology and infrastructure with policies and standards, so our systems can share information with each other. In a simple sense, it is the software standards that will allow all our current and future systems, including those in the airplane, to share data with each other; or in other words, an "internet" that is specifically designed for aviation needs. Like the internet, this can potentially revolutionize the way we control aircraft and predict traffic flows.

New technologies like ADS-B and SWIM, when combined with the modernized platforms that are replacing our aging Host Computer and Enhanced Traffic Management System, can then support new and more innovative ideas in the future. In order to keep up with the expected growing traffic demands, and make ourselves more efficient and affordable at the same time, we need to leverage every dollar we spend on the needed research and development that can help us build a brighter future for our customers, our owners, and ourselves.

And speaking of innovation, I'd like to recognize Steve Edwards, Steve is a Navigational Aids technician at the Dallas/Fort Worth Airport. Steve built an electronic device to troubleshoot a difficult problem in an Instrument Landing System antenna array. He calls his device the Localizer Cable Fault Analyzer.

The FAA filed a provisional patent for this device last August, and the FAA Logistics Center in Oklahoma City is doing a cost study to determine whether to make this device available to technicians on a national basis. In the meantime, Steve has built 38 systems, and in

the last two weeks, units were shipped to our System Support Centers in Alaska and Utah.

Deborah Germak, the FAA Technology Transfer Program Manager at the Technical Center has been a key player in the promotion of this device. Deborah encouraged Steve to submit his analyzer to the "World's Best Technology Showcase" held in March, and Steve reports that his presentation went well. The system was on display this week at the Technical Symposium in Atlantic City.

That's all for this week. Thanks for listening. And I'll talk with you again next week.